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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Docket No.: P26871

W. BLACKWELL, *et al.*

Confirmation No.: 9978

Serial No.: 10/602,711

Group Art Unit: No. 3652

Filed: June 25, 2003

Examiner: G. W. Adams

For: **METHOD AND APPARATUS TO EFFECTUATE AUTOMATED POSITIONING  
AND LOADING OF VARIABLE SIZED CONTAINERS**

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Commissioner for Patents  
U.S. Patent and Trademark Office  
Customer Window, Mail Stop Appeal Brief-Patents  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314  
Sir:

This appeal is from the Examiner's final rejection of claims 1-26 as set forth in the Final Office Action of September 20, 2006. A Notice of Appeal and a Request For Pre-Appeal Brief Review, in response to the September 20, 2006 Final Office Action, was filed on November 20, 2006.

Payment in the amount of \$ 500.00 is being concurrently submitted as payment of the requisite fee under 37 C.F.R. 41.20(b)(2). No additional fee is believed to be required for filing the instant Appeal Brief. However, if for any reason a necessary fee is required for consideration of the instant paper, authorization is hereby given to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No. 19-0089.

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**(I) REAL PARTY IN INTEREST**

The real party in interest is Lockheed Martin Corporation by an assignments recorded in the U.S. Patent and Trademark Office on June 25, 2003, at Reel 014234 and Frame 0310 and at Reel 014229 and Frame 0358.

**(II) RELATED APPEALS AND INTERFERENCES**

No related appeals and/or interferences are pending.

**(III) STATUS OF THE CLAIMS**

Claims 1-26 are pending. Claims 1-26 stand finally rejected. Thus, finally rejected claims 1-26 are at issue in the instant appeal and form the subject matter of the instant Appeal Brief. The claims in issue are attached in the "Claims Appendix".

**(IV) STATUS OF THE AMENDMENTS**

No amendment to the claims was filed after receipt of the Final Office Action dated September 20, 2006. Instead, Appellant filed a Notice of Appeal and a Request for Pre-Appeal Brief Review. Appellant submits that no amendments after final have been filed; however, all amendments to the claims have been entered.

**(V) SUMMARY OF THE CLAIMED SUBJECT MATTER**

**A. The Claimed Subject Matter**

**1. INDEPENDENT CLAIM 1**

With reference to pages 5-12 of the instant specification and to the figures, and by way of non-limiting example, the invention provides for an apparatus (100) for loading mail objects, comprising a bucket assembly (110) which holds a container (see Fig. 7), an actuator system (400)

moving the bucket assembly (110) between at least an upright position (see Fig. 4), an intermediate tilt position (see Fig. 5) and a full tilt position (see Fig. 6), and at least one sensor (120C) which detects whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the full tilt position (see page 7, lines 8-23 of the specification). A feedback control system (e.g., sensors 120A-120C and control system C) controls an indexing of the bucket assembly (110) (see page 6, line 23 to page 7, line 7 of the specification), via the actuator system (400), between the upright position (Fig. 4), the intermediate tilt position (Fig. 5) and the full tilt position (Fig. 6). The intermediate position (Fig. 5), packages or other mail objects are permitted to settle within the bucket assembly (110) such that additional packages or other mail objects can be introduced into the bucket assembly (110) in the intermediate position (see Fig. 5 and page 10, lines 6-20 of the specification).

## **2. INDEPENDENT CLAIM 17**

With reference to pages 5-12 of the instant specification and to the figures, and by way of non-limiting example, the invention provides for a loading system, comprising a transporting and sorting system (T), including an induction mechanism that introduces packages onto a transporting system which transports the packages from the induction mechanism to a plurality of drop off positions (see page 9, line 29 to page 10, line 5 of the specification). A chute (CH) is associated with each of the plurality of drop off positions. A loading apparatus (100) comprises a bucket assembly (110) which holds a container (see Fig. 7), an actuator system (400) moving the bucket assembly (110) between at least an upright position (see Fig. 4), an intermediate tilt position (see Fig. 5) and another tilt position (see Fig. 6), at least one sensor (120C) which

detects whether the bucket assembly (110) has reached a fill capacity (see page 7, lines 8-23 of the specification) at each of the upright position (Fig. 4), the intermediate tilt position (Fig. 5) and the another tilt position (Fig. 6), and a feedback control system (e.g., sensors 120A-120C and control system C) which controls an indexing of the bucket assembly (110), via the actuator system (400), between the upright position (Fig. 4), the intermediate tilt position (Fig. 5) and the another tilt position (Fig. 6).

### **3. INDEPENDENT CLAIM 21**

With reference to pages 5-12 of the instant specification and to the figures, and by way of non-limiting example, the invention provides for a method for loading packages, comprising the steps of placing a container in a first tilt position (see Fig. 7), detecting when the container is full (step 812 via sensor 120C) at the first tilt position (see page 11, line 21 to page 12, line 10 of the specification), indexing the container to an intermediate tilt position to enable settling of contents within the container (see page 11, line 21 to page 12, line 10 of the specification), detecting when the container is full at the intermediate tilt position (step 818), and indexing the container to an upright position (steps 814 and/or 820).

### **4. INDEPENDENT CLAIM 25**

With reference to pages 5-12 of the instant specification and to the figures, and by way of non-limiting example, the invention provides for a control system for loading packages, comprising a module (e.g., sensor 120C) which detects when a container is full (see page 7, lines 8-23 of the specification) at a first tilt position (Fig. 4), an intermediate tilt position (Fig. 5) and an upright position (Fig. 6), a module (e.g., sensor 120D) which detects a position of the

container (see Figs. 4-7), and a module (e.g., sensors 120C, 120D, actuator system 400, and control C) which controls a movement of the container based at least on a capacity of the container (see page 6, line 23 to page 8, line 9, page 10, lines 6-20, and page 11, line 5 to page 12, line 12).

**(VI) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

**Whether claim 2 is improperly rejected under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph as being indefinite.**

**Whether claims 1, 3-17, 19-22 and 24-26 are improperly rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,875,327 issued to WILDE.**

**Whether claims 2, 18 and 23 are improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,875,327 issued to WILDE in view of U.S. Patent No. 5,797,716 issued to HERRIN.**

**(VII) ARGUMENT RE. 112, 2<sup>nd</sup> PARAGRAPH, REJECTION**

**REJECTION OF DEPENDENT CLAIM 2 UNDER 35 U.S.C. § 112, 2<sup>nd</sup> PARAGRAPH IS IN ERROR**

The rejection of claim 2 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, as being indefinite is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The Examiner asserts that claim 2 is indefinite because it is not clear whether “the mail objects are being loaded into a bucket assembly or a container which is supported by a bucket assembly. Appellants respectfully disagree.

Appellants submit that one having ordinary skill in the art having read the specification (in particular page 6, line 23 to page 7, line 23 of the instant specification) would clearly recognize that the bucket assembly has the ability (via sensors 120A) to detect whether any number or type of containers are properly positioned in the bucket assembly and also has the ability to determine filling capacity (via e.g., sensors 120C) of both the bucket assembly and a container positioned in the bucket assembly.

Claim 2 simply recites the feature that the sensor 120A detects whether any number or type of containers are properly positioned in the bucket assembly. This feature is specifically disclosed on page 6, lines 27-29 of the instant specification.

The Examiner expresses concern that the sensors of the bucket assembly cannot be capable of determining the fill capacity of a container arranged within the bucket assembly. Appellants submit that one having ordinary skill in the art having read the specification and drawings would clearly recognize the various ways that this can occur. For example, it is well known to make containers (e.g., mail containers) of a transparent plastic or with handles which are openings in the sides of the containers; both configurations allows the sensors to determine a fill capacity of the container. A container made of a transparent or translucent material is shown in Fig. 7 of the instant application. It is also possible to place the sensors at a height of a container in order to determine fill capacity of the container. Such sensors, as are known in the art, can be, for example, photodiodes which, when light is interrupted, can sense that the container is full.

Because each of the features recited in claim 2 would be understood by one having

ordinary skill in the art, Appellants submit that each of the features in claim 2 are clear and are not indefinite.

**(VIII) ARGUMENT RE. 102(b) REJECTION**

**REJECTION OF INDEPENDENT CLAIM 1 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 4,875,327 to WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The Examiner asserts that WILDE teaches each and every feature recited in claim 1. Appellants respectfully disagree.

Independent claim 1 recites, *inter alia*,

at least one sensor which detects whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the full tilt position.

Appellants acknowledge, for example, that WILDE teaches a container filling apparatus which utilizes a container support 14 and container that can be loaded with parts (see col. 6, lines 33-52). Appellants also acknowledge that WILDE discloses the use of a sensor 130 and limit switches 156 and 158 (see col. 6, lines 8-32). However, contrary to the Examiner's assertions, the so-called sensors 130 and 156 do not detect whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the full tilt position, for example.

The Examiner is respectfully directed to col. 6, line 33 to col. 7, line 26 of WILDE which specifically explains that the initial movement of the container support 14 is controlled by an



operator. Thereafter, the filling takes place under the influence of the back-up sensor which detects back-up of the parts on the discharge end 75 of a discharge section 18. Such language is hardly suggestive of detecting when a bucket assembly is full at each of a first tilt position, an intermediate tilt position and an upright position.

Appellants emphasize that col. 6 of WILDE specifically teaches that the limit switch 156 shuts down the conveyor when the limit switch is contacted. Such disclosure is hardly suggestive of determining fill capacities at different tilt positions. Col. 6 also clearly discloses that the limit switch 158 is positioned to be contacted by the container support when it is fully lowered. Again, this is not suggestive, nor does it teach, detecting fill capacity at different tilt positions of the bucket assembly. Limit switch 158 merely determines that a container is in a lowered position.

On page 6 of the Final Office Action, the Examiner explains that the so-called “sensors 130, 156 detect fill capacity by warning that there is an amount within a container that will cause a backup”. This assertion is without support, ignores the clear language of claim 1, and is, in fact, contradicted by the clear disclosure of WILDE. The so-called sensors 130 and 156 in WILDE simply do not detect whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the full tilt position. To the contrary, col. 5, lines 45-50 of WILDE discloses that the sensor 130 is “[a] parts back-up sensor” which is “located on discharge section 18”. The disclosed sensor 130 merely detects “the back-up of parts at the discharge end 75.” This is simply not a fill capacity sensor, as recited in the claimed invention. Moreover, col. 6, lines 8-32 of WILDE discloses that the so-called sensor 156 is in

fact merely an “[a]djustable limit switch” which, when contacted, shuts down the conveyor and lowers the conveyor support 14 “to a fully lower position (FIG. 3).”

In summary, the Examiner has simply not explained how the disclosed back-up sensor 130 and/or limit switch 156, which is not even arranged on the container support 14, is capable of detecting whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the full tilt position.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least independent claim 1.

**REJECTION OF INDEPENDENT CLAIM 17 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 17 under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 4,875,327 to WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The Examiner asserts that WILDE teaches each and every feature recited in claim 17. Appellants respectfully disagree.

Independent claim 17 recites, *inter alia*,

at least one sensor which detects whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the another tilt position.

As explained above, Appellants acknowledge that WILDE teaches a container filling apparatus which utilizes a container support 14 and container that can be loaded with parts (see col. 6, lines 33-52). Appellants also acknowledge that WILDE discloses the use of a sensor 130 and limit switches 156 and 158 (see col. 6, lines 8-32). However, contrary to the Examiner's (P26871 00119617.DOC)

assertions, the so-called sensors 130 and 156 do not detect whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and another tilt position, for example.

The Examiner is respectfully directed to col. 6, line 33 to col. 7, line 26 of WILDE which specifically explains that the initial movement of the container support 14 is controlled by an operator. Thereafter, the filling takes place under the influence of the back-up sensor which detects back-up of the parts on the discharge end 75 of a discharge section 18. Such language is hardly suggestive of detecting when a bucket assembly is full at each of an upright position, an intermediate tilt position, and another tilt position.

Appellants emphasize that col. 6 of WILDE specifically teaches that the limit switch 156 shuts down the conveyor when the limit switch is contacted. Such disclosure is hardly suggestive of determining fill capacities at different tilt positions. Col. 6 also clearly discloses that the limit switch 158 is positioned to be contacted by the container support when it is fully lowered. Again, this is not suggestive, nor does it teach, detecting fill capacity at different tilt positions of the bucket assembly. Limit switch 158 merely determines that a container is in a lowered position.

On page 6 of the Final Office Action, the Examiner explains that the so-called “sensors 130, 156 detect fill capacity by warning that there is an amount within a container that will cause a backup”. This assertion is without support, ignores the clear language of claim 17, and is, in fact, contradicted by the clear disclosure of WILDE. The so-called sensors 130 and 156 in WILDE simply do not detect whether the bucket assembly has reached a fill capacity at each of

the upright position, the intermediate tilt position and another tilt position. To the contrary, col. 5, lines 45-50 of WILDE discloses that the sensor 130 is “[a] parts back-up sensor” which is “located on discharge section 18”. The disclosed sensor 130 merely detects “the back-up of parts at the discharge end 75.” This is simply not a fill capacity sensor, as recited in the claimed invention. Moreover, col. 6, lines 8-32 of WILDE discloses that the so-called sensor 156 is in fact merely an “[a]djustable limit switch” which, when contacted, shuts down the conveyor and lowers the conveyor support 14 “to a fully lower position (FIG. 3).”

In summary, the Examiner has simply not explained how the disclosed back-up sensor 130 and/or limit switch 156, which is not even arranged on the container support 14, is capable of detecting whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and another tilt position.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least independent claim 17.

**REJECTION OF INDEPENDENT CLAIM 21 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 21 under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 4,875,327 to WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The Examiner asserts that WILDE teaches each and every feature recited in claim 21. Appellants respectfully disagree.

Independent claim 21 recites, *inter alia*,

detecting when the container is full at the first tilt position;  
indexing the container to an intermediate tilt position to enable settling of contents within the container; and  
detecting when the container is full at the intermediate tilt position.

As explained above, Appellants acknowledge that WILDE teaches a container filling apparatus which utilizes a container support 14 and container that can be loaded with parts (see col. 6, lines 33-52). Appellants also acknowledge that WILDE discloses the use of a sensor 130 and limit switches 156 and 158 (see col. 6, lines 8-32). However, contrary to the Examiner's assertions, the so-called sensors 130 and 156 do not detect whether the container has reached a fill capacity at each of a first tilt position and an intermediate tilt position.

The Examiner is respectfully directed to col. 6, line 33 to col. 7, line 26 of WILDE which specifically explains that the initial movement of the container support 14 is controlled by an operator. Thereafter, the filling takes place under the influence of the back-up sensor which detects back-up of the parts on the discharge end 75 of a discharge section 18. Such language is hardly suggestive of detecting when a container is full at each of a first tilt position and an intermediate tilt position.

Appellants emphasize that col. 6 of WILDE specifically teaches that the limit switch 156 shuts down the conveyor when the limit switch is contacted. Such disclosure is hardly suggestive of determining fill capacities at different tilt positions. Col. 6 also clearly discloses that the limit switch 158 is positioned to be contacted by the container support when it is fully lowered. Again, this is not suggestive, nor does it teach, detecting fill capacity at different tilt positions of the container. Limit switch 158 merely determines that a container is in a lowered position.

On page 6 of the Final Office Action, the Examiner explains that the so-called “sensors 130, 156 detect fill capacity by warning that there is an amount within a container that will cause a backup”. This assertion is without support, ignores the clear language of claim 21, and is, in fact, contradicted by the clear disclosure of WILDE. The so-called sensors 130 and 156 in WILDE simply do not detect whether the container has reached a fill capacity at each of a first tilt position and an intermediate tilt position. To the contrary, col. 5, lines 45-50 of WILDE discloses that the sensor 130 is “[a] parts back-up sensor” which is “located on discharge section 18”. The disclosed sensor 130 merely detects “the back-up of parts at the discharge end 75.” This is simply not a fill capacity sensor, as recited in the claimed invention. Moreover, col. 6, lines 8-32 of WILDE discloses that the so-called sensor 156 is in fact merely an “[a]djustable limit switch” which, when contacted, shuts down the conveyor and lowers the conveyor support 14 “to a fully lower position (FIG. 3).”

In summary, the Examiner has simply not explained how the disclosed back-up sensor 130 and/or limit switch 156, which is not even arranged on the container support 14, is capable of detecting whether the container has reached a fill capacity at each of a first tilt position and an intermediate tilt position.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least independent claim 21.

**REJECTION OF INDEPENDENT CLAIM 25 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 25 under 35 U.S.C. § 102(b) as being anticipated by US Patent No.

4,875,327 to WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The Examiner asserts that WILDE teaches each and every feature recited in claim 25.

Appellants respectfully disagree.

Independent claim 25 recites, *inter alia*,

a module which detects when a container is full at a first tilt position, an intermediate tilt position and an upright position;  
a module which detects a position of the container; and  
a module which controls a movement of the container based at least on a capacity of the container.

Appellants acknowledge, for example, that WILDE teaches a container filling apparatus which utilizes a container support 14 and container that can be loaded with parts (see col. 6, lines 33-52). Appellants also acknowledge that WILDE discloses the use of a sensor 130 and limit switches 156 and 158 (see col. 6, lines 8-32). However, contrary to the Examiner's assertions, the so-called sensors 130 and 156 do not detect whether the container has reached a fill capacity at each of a first tilt position, an intermediate tilt position and an upright position, for example.

The Examiner is respectfully directed to col. 6, line 33 to col. 7, line 26 of WILDE which specifically explains that the initial movement of the container support 14 is controlled by an operator. Thereafter, the filling takes place under the influence of the back-up sensor which detects back-up of the parts on the discharge end 75 of a discharge section 18. Such language is hardly suggestive of detecting when a container is full at each of a first tilt position, an intermediate tilt position and an upright position.

Appellants emphasize that col. 6 of WILDE specifically teaches that the limit switch 156

shuts down the conveyor when the limit switch is contacted. Such disclosure is hardly suggestive of determining fill capacities at different tilt positions. Col. 6 also clearly discloses that the limit switch 158 is positioned to be contacted by the container support when it is fully lowered. Again, this is not suggestive, nor does it teach, detecting fill capacity at different tilt positions of the container. Limit switch 158 merely determines that a container is in a lowered position.

On page 6 of the Final Office Action, the Examiner explains that the so-called "sensors 130, 156 detect fill capacity by warning that there is an amount within a container that will cause a backup". This assertion is without support, ignores the clear language of claim 25, and is, in fact, contradicted by the clear disclosure of WILDE. The so-called sensors 130 and 156 in WILDE simply do not detect whether the container has reached a fill capacity at each of the first tilt position, the intermediate tilt position and the upright position. To the contrary, col. 5, lines 45-50 of WILDE discloses that the sensor 130 is "[a] parts back-up sensor" which is "located on discharge section 18". The disclosed sensor 130 merely detects "the back-up of parts at the discharge end 75." This is simply not a module which detects fill capacity at each of the three positions as recited in the claimed invention. Moreover, col. 6, lines 8-32 of WILDE discloses that the so-called sensor 156 is in fact merely an "[a]djustable limit switch" which, when contacted, shuts down the conveyor and lowers the conveyor support 14 "to a fully lower position (FIG. 3)."

In summary, the Examiner has simply not explained how the disclosed back-up sensor 130 and/or limit switch 156, which is not even arranged on the container support 14, is capable of detecting whether the container has reached a fill capacity at each of a first tilt position, the



intermediate tilt position, and an upright position.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least independent claim 25.

**REJECTION OF DEPENDENT CLAIM 5 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 5 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 5 depends from claim 1 and further recites a safety sensor associated with the actuator assembly to ensure shut down of the actuator assembly based on a detected problem.

The Examiner identifies limit switch 158 in WILDE as the recited a safety sensor associated with the actuator assembly to ensure shut down of the actuator assembly based on a detected problem. However, the Examiner has failed to appreciate that WILDE describes the limit switch 158 as merely detecting "when container support is lowered to a fully lowered position" (see col. 6, lines 24-26). Thus, the Examiner is not correct that WILDE discloses a safety sensor associated with the actuator assembly to ensure shut down of the actuator assembly based on a detected problem.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention. Appellants also submit that dependent claim 5 is allowable at least for the reason that this claim depends from allowable claim 1.

Because the above-noted document fails to disclose, or even suggest, at least the above-

noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least dependent claim 5.

**REJECTION OF DEPENDENT CLAIM 8 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 8 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 8 depends from claim 1 and further recites a chute sensor which detects package or mail object backlog within the chute upstream from the bucket assembly.

The Examiner identifies sensor 130 in WILDE as the recited a chute sensor. However, because the Examiner has asserted that this sensor constitutes the fill capacity sensor of claim 1, the Examiner cannot properly argue that the same sensor is both the recited fill capacity sensor of claim 1 and the chute sensor of claim 8. Thus, the Examiner is not correct that WILDE discloses both the recited sensor of claim 1 and a chute sensor which detects package or mail object backlog within the chute upstream from the bucket assembly. In any event, sensor 130 is described as a parts back-up sensor. There is simply no disclosure whatsoever indicating that this sensor, or any other sensor in WILDE, is a chute sensor. In fact, WILDE mentions an adjustable chute, but never mentions a sensor associated therewith.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention. Appellants also submit that dependent claim 8 is allowable at least for the reason that this claim depends from allowable claim 1.

Because the above-noted document fails to disclose, or even suggest, at least the above-

noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least dependent claim 8.

**REJECTION OF DEPENDENT CLAIM 14 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 14 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 14 depends from claim 1 and further recites that the bucket assembly includes a floor assembly and a rear wall assembly for supporting any variable sized containers, the rear wall assembly including a substantially coplanar surface, where one surface of the coplanar surface is raised with respect to another surface of the coplanar surface.

The Examiner alleges that WILDE teaches a bucket assembly with “a floor and a rear wall.” However, the Examiner has failed to appreciate that Appellants have not merely claimed a bucket assembly with “a floor and a rear wall.” Claim 14 clearly recites that the rear wall assembly includes a substantially coplanar surface, where one surface of the coplanar surface is raised with respect to another surface of the coplanar surface. This has not been shown to be disclosed in WILDE.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention and which further defines the invention. Furthermore, Appellants also submit that dependent claim 14 is allowable at least for the reason that this claim depends from allowable claim 1.

Because the above-noted document fails to disclose, or even suggest, at least the above-

noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least dependent claim 14.

**REJECTION OF DEPENDENT CLAIM 15 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 15 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 15 depends from claims 14 and 1, and further recites that the raised coplanar surface permits packages to be introduced into a half sized container while minimizing false trips of at least one of the at least one sensors.

While the Examiner has alleged that WILDE teaches a bucket assembly with “a floor and a rear wall”, the Examiner has failed to appreciate that Appellants have not merely claimed a bucket assembly with “a floor and a rear wall.” Claim 15 clearly recites the raised coplanar surface of claim 14 permits packages to be introduced into a half sized container while minimizing false trips of at least one of the at least one sensors. This has not been shown to be disclosed in WILDE.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention and which further defines the invention. Furthermore, Appellants also submit that dependent claim 15 is allowable at least for the reason that this claim depends from allowable claims 1 and 14.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE

renders anticipated the combination of features recited in at least dependent claim 15.

**REJECTION OF DEPENDENT CLAIM 16 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 16 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 16 depends from claim 1 and further recites that the feedback control system is a positional feedback system associated with the actuator assembly for controlling the movement of the bucket assembly.

Rather than identify any language in WILDE which discloses this feature, the merely concludes that this feature is taught in WILDE.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention and which further defines the invention. Appellants also submit that dependent claim 16 is allowable at least for the reason that this claim depends from allowable claim 1.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least dependent claim 16.

**REJECTION OF DEPENDENT CLAIM 19 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 19 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 19 depends from claim 17 and further recites that the feedback control system is a positional system associated with the actuator system. Rather than identify any language in WILDE which discloses this feature, the merely concludes that this feature is taught in WILDE.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention and which further defines the invention. Appellants also submit that dependent claim 19 is allowable at least for the reason that this claim depends from allowable claim 17.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least dependent claim 19.

**REJECTION OF DEPENDENT CLAIM 20 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 20 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 20 depends from claim 17 and further recites that the feedback control system includes position sensors providing feedback signals to a controller for indexing the movement of the bucket assembly. Rather than identify any language whatsoever in WILDE which discloses this feature, the merely concludes that this feature is taught in WILDE.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention and which further defines the invention. Appellants also submit that dependent claim 20 is allowable at least for the reason that this claim depends from

allowable claim 17.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE renders anticipated the combination of features recited in at least dependent claim 20.

**REJECTION OF DEPENDENT CLAIM 22 UNDER 35 U.S.C. § 102 IS IN ERROR**

The rejection of claim 22 under 35 U.S.C. § 102(b) as being unpatentable over WILDE is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 22 depends from claim 21 and further recites the steps of detecting when the container has reached full capacity in the upright position and removing the container.

While it is true that Figs. 1-3 of WILDE illustrate movement of container during filling thereof, WILDE describes a process in which the container receives product as it moves from the upper position to the lower position wherein the container is filled when in the lowered position (see description of Figs. 1-3). As such, it does not disclose detecting when the container has reached full capacity in the upright position and removing the container.

Appellants submit that the Examiner is not free to ignore features which are clearly set forth in the claimed invention and which further defines the invention. Appellants also submit that dependent claim 22 is allowable at least for the reason that this claim depends from allowable claim 21.

Because the above-noted document fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper reading of WILDE

renders anticipated the combination of features recited in at least dependent claim 22.

**(IX) ARGUMENT RE. 103(a) REJECTION**

**REJECTION OF DEPENDENT CLAIM 2 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over WILDE in view of HERRIN is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

In rejecting claim 2, the Examiner acknowledges that WILDE does not teach “a sensor determining whether any container is properly positioned”, but asserts that this is disclosed at col. 6, line 56 of HERRIN. Appellants respectfully disagree.

While the Examiner has identified sensors 66 and 67 of HERRIN as a sensor which determines whether any container is properly positioned, the Examiner has clearly failed to appreciate the fact that sensors 66 and 67 of HERRIN merely sense “the entering and exiting of containers C” through “the container holder” (see col. 6, lines 56-60). This is not the same as sensing the proper positioning of a container. Instead, such sensors only detect a passing of a container at certain points.

Nor has the Examiner explained how the disclosed sensors 66 and 67 can possibly determine whether any variable sized mail holding container is properly positioned within a bucket assembly.

Furthermore, HERRIN does not cure the deficiencies of WILDE as noted above. Appellants submit that none of the disclosed sensors (including sensors 66 and 67) of HERRIN have been shown by the Examiner to be capable of detecting whether the bucket assembly has



reached a fill capacity at each of the recited positions as recited in claim 1 from which claim 2 depends. Nor has the Examiner adequately explained why one having ordinary skill in the art would be motivated to combine the teachings of these documents.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 2.

**REJECTION OF DEPENDENT CLAIM 18 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 18 under 35 U.S.C. § 103(a) as being unpatentable over WILDE in view of HERRIN is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

In rejecting claim 18, the Examiner acknowledges that WILDE does not teach “a sensor for proper container positioning”, but asserts that this is disclosed at col. 6, line 56 of HERRIN. Appellants respectfully disagree.

As explained above, while the Examiner has identified sensors 66 and 67 of HERRIN as a sensor which determines whether any container is properly positioned, the Examiner has clearly failed to appreciate the fact that sensors 66 and 67 of HERRIN merely sense “the entering and exiting of containers C” through “the container holder” (see col. 6, lines 56-60). This is not the same as sensing the proper positioning of a container. Instead, such sensors only detect a passing of a container at certain points. Nor has the Examiner explained how the disclosed sensors 66 and 67 can possibly determine whether any variable sized mail holding container is properly

positioned within a bucket assembly.

Furthermore, HERRIN does not cure the deficiencies of WILDE as noted above.

Appellants submit that none of the disclosed sensors (including sensors 66 and 67) of HERRIN have been shown by the Examiner to be capable of detecting whether the bucket assembly has reached a fill capacity at each of the recited positions as recited in claim 17 from which claim 18 depends.

Appellants also take issue with the Examiner's assertion that WILDE discloses the recited safety sensor. While the Examiner identifies limit switch 158 in WILDE as the recited a safety sensor associated with the actuator assembly to ensure shut down of the actuator assembly based on a detected problem, the Examiner has failed to appreciate that WILDE describes the limit switch 158 as merely detecting "when container support is lowered to a fully lowered position" (see col. 6, lines 24-26). Thus, the Examiner is not correct that WILDE discloses a safety sensor associated with the actuator assembly to ensure shut down of the actuator assembly based on a detected problem.

Nor has the Examiner adequately explained why one having ordinary skill in the art would be motivated to combine the teachings of these documents.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 18.

**REJECTION OF DEPENDENT CLAIM 23 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 23 under 35 U.S.C. § 103(a) as being unpatentable over WILDE in view of HERRIN is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 23 depends from claim 21 and further recites the step of detecting whether the container is properly positioned prior to loading the container with the content.

In rejecting claim 23, the Examiner acknowledges that WILDE does not teach “detecting whether a container[s] is properly positioned prior to loading”, but asserts that this is disclosed at col. 6, lines 46-60 of HERRIN. Appellants respectfully disagree.

As explained above, while the Examiner apparently believes that sensors 66 and 67 of HERRIN constitute a sensor which determines whether any container is properly positioned, the Examiner has clearly failed to appreciate the fact that sensors 66 and 67 of HERRIN merely sense “the entering and exiting of containers C” through “the container holder” (see col. 6, lines 56-60). This is not the same as sensing the proper positioning of a container. Instead, such sensors only detect a passing of a container at certain points. Nor has the Examiner explained how the disclosed sensors 66 and 67 can possibly determine whether a container is properly positioned prior to loading the container with the content.

Furthermore, HERRIN does not cure the deficiencies of WILDE as noted above. Appellants submit that none of the disclosed sensors (including sensors 66 and 67) of HERRIN have been shown by the Examiner to be capable of detecting whether the container has reached a fill capacity at each of the recited positions as recited in claim 21 from which claim 23 depends.

Nor has the Examiner adequately explained why one having ordinary skill in the art would be motivated to combine the teachings of these documents.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellants submit that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 23.

**(X) CONCLUSION**

Each of claims 1-26 are patentable under 35 U.S.C. §§ 112, 102(b) and 103(a). Specifically, the applied art of record, even if properly combined, fails to disclose or suggest the unique combination of features recited in Appellants' claims 1-26. Accordingly, Appellants respectfully request that the Board reverse the decision of the Examiner to reject claims 1-26 under 35 U.S.C. §§ 112, 102(b) and 103(a), and remand the application to the Examiner for withdrawal of the above-noted rejections.

Respectfully submitted,  
W. BLACKWELL, *et al.*



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Attachments:

Claims Appendix  
Evidence Appendix  
Related Proceedings Appendix

**CLAIMS ON APPEAL**

1. An apparatus for loading mail objects, comprising:
  - a bucket assembly which holds a container;
  - an actuator system moving the bucket assembly between at least an upright position, an intermediate tilt position and a full tilt position;
  - at least one sensor which detects whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the full tilt position; and
  - a feedback control system which controls an indexing of the bucket assembly, via the actuator system, between the upright position, the intermediate tilt position and the full tilt position,wherein in the intermediate position, packages or other mail objects are permitted to settle within the bucket assembly such that additional packages or other mail objects can be introduced into the bucket assembly in the intermediate position.
2. The apparatus of claim 1, further comprising a sensor determining whether any variable sized mail holding container is properly positioned within the bucket assembly.
3. The apparatus of claim 1, wherein the intermediate tilt position and the full tilt position minimize damage to the packages or other mail objects.
4. The apparatus of claim 1, wherein the bucket assembly includes an open sided configuration for accommodating variable sized mail containers.
5. The apparatus of claim 1, further comprising a safety sensor associated with the actuator assembly to ensure shut down of the actuator assembly based on a detected problem.

6. The apparatus of claim 1, further comprising at least an additional sensor to detect other positions of the bucket assembly for providing signal controls to at least control movement of the bucket assembly.

7. The apparatus of claim 6, wherein the other positions is at least one of an upright and down position.

8. The apparatus of claim 1, further comprising a chute sensor which detects package or mail object backlog within the chute upstream from the bucket assembly.

9. The apparatus of claim 1, further comprising a cradle assembly which holds the bucket assembly, the cradle assembly being coupled to the actuator system.

10. The apparatus of claim 9, wherein the cradle assembly includes a cradle shaft coupled to a mounting system of a frame assembly.

11. The apparatus of claim 9, wherein the cradle assembly further includes lift ribs coupled to a mount assembly of the actuator system.

12. The apparatus of claim 1, wherein the actuator system is one of a hydraulic system, air cylinder and screw-type system.

13. The apparatus of claim 1, wherein the actuator system includes a linkage system which assists in the titling and other movements of the bucket assembly.

14. The apparatus of claim 1, wherein the bucket assembly includes a floor assembly and a rear wall assembly for supporting any variable sized containers, the rear wall assembly including a substantially coplanar surface, where one surface of the coplanar surface is raised

with respect to another surface of the coplanar surface.

15. The apparatus of claim 14, wherein the raised coplanar surface permits packages to be introduced into a half sized container while minimizing false trips of at least one of the at least one sensors.

16. The apparatus of claim 1, wherein the feedback control system is a positional feedback system associated with the actuator assembly for controlling the movement of the bucket assembly.

17. A loading system, comprising:

a transporting and sorting system, including:

an induction mechanism that introduces packages onto a transporting system which transports the packages from the induction mechanism to a plurality of drop off positions;  
a chute associated with each of the plurality of drop off positions; and  
a loading apparatus, comprising:

a bucket assembly which holds a container; an actuator system moving the bucket assembly between at least an upright position, an intermediate tilt position and another tilt position;

at least one sensor which detects whether the bucket assembly has reached a fill capacity at each of the upright position, the intermediate tilt position and the another tilt position;  
and

a feedback control system which controls an indexing of the bucket assembly, via the actuator system, between the upright position, the intermediate tilt position and the another tilt position.

18. The loading system of claim 17, further comprising:

a sensor determining whether the container is properly positioned within the bucket

assembly;

a safety sensor associated with the actuator system ensuring shut down of the actuator system based on a detected problem;

at least an additional sensor to detect at least one of an upright and down position of the bucket assembly; and

a chute sensor located proximate to the chute which detects package backlog on the chute.

19. The loading apparatus of claim 17, wherein the feedback control system is a positional system associated with the actuator system.

20. The loading apparatus of claim 17, wherein the feedback control system includes position sensors providing feedback signals to a controller for indexing the movement of the bucket assembly.

21. A method for loading packages, comprising the steps of:

placing a container in a first tilt position;

detecting when the container is full at the first tilt position;

indexing the container to an intermediate tilt position to enable settling of contents within the container;

detecting when the container is full at the intermediate tilt position; and

indexing the container to an upright position.

22. The method of claim 21, further comprising the steps of detecting when the container has reached full capacity in the upright position and removing the container.

23. The method of claim 21, further comprising the step of detecting whether the container is properly positioned prior to loading the container with the content.



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24. The method of claim 21, further comprising the step of detecting any problems and stopping the loading of the container.

25. A control system for loading packages, comprising:  
a module which detects when a container is full at a first tilt position, an intermediate tilt position and an upright position;  
a module which detects a position of the container; and  
a module which controls a movement of the container based at least on a capacity of the container.

26. The control of claim 25, wherein the controlling module is a positional sensor.

EVIDENCE APPENDIX

This section lists evidence submitted pursuant to 35 U.S.C. §§1.130, 1.131, or 1.132, or any other evidence entered by the Examiner and relied upon by Appellant in this appeal, and provides for each piece of evidence a brief statement setting forth where in the record that evidence was entered by the Examiner. Copies of each piece of evidence are provided as required by 35 U.S.C. §41.37(c)(ix).

NO.	EVIDENCE	BRIEF STATEMENT SETTING FORTH WHERE IN THE RECORD THE EVIDENCE WAS ENTERED BY THE EXAMINER
1	N/A	N/A

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RELATED PROCEEDINGS APPENDIX

Pursuant to 35 U.S.C. §41.37(c)(x), copies of the following decisions rendered by a court of the Board in any proceeding identified above under 35 U.S.C. §41.37(c)(1)(ii) are enclosed herewith.

NO.	TYPE OF PROCEEDING	REFERENCE NO.	DATE
1	N/A	N/A	N/A